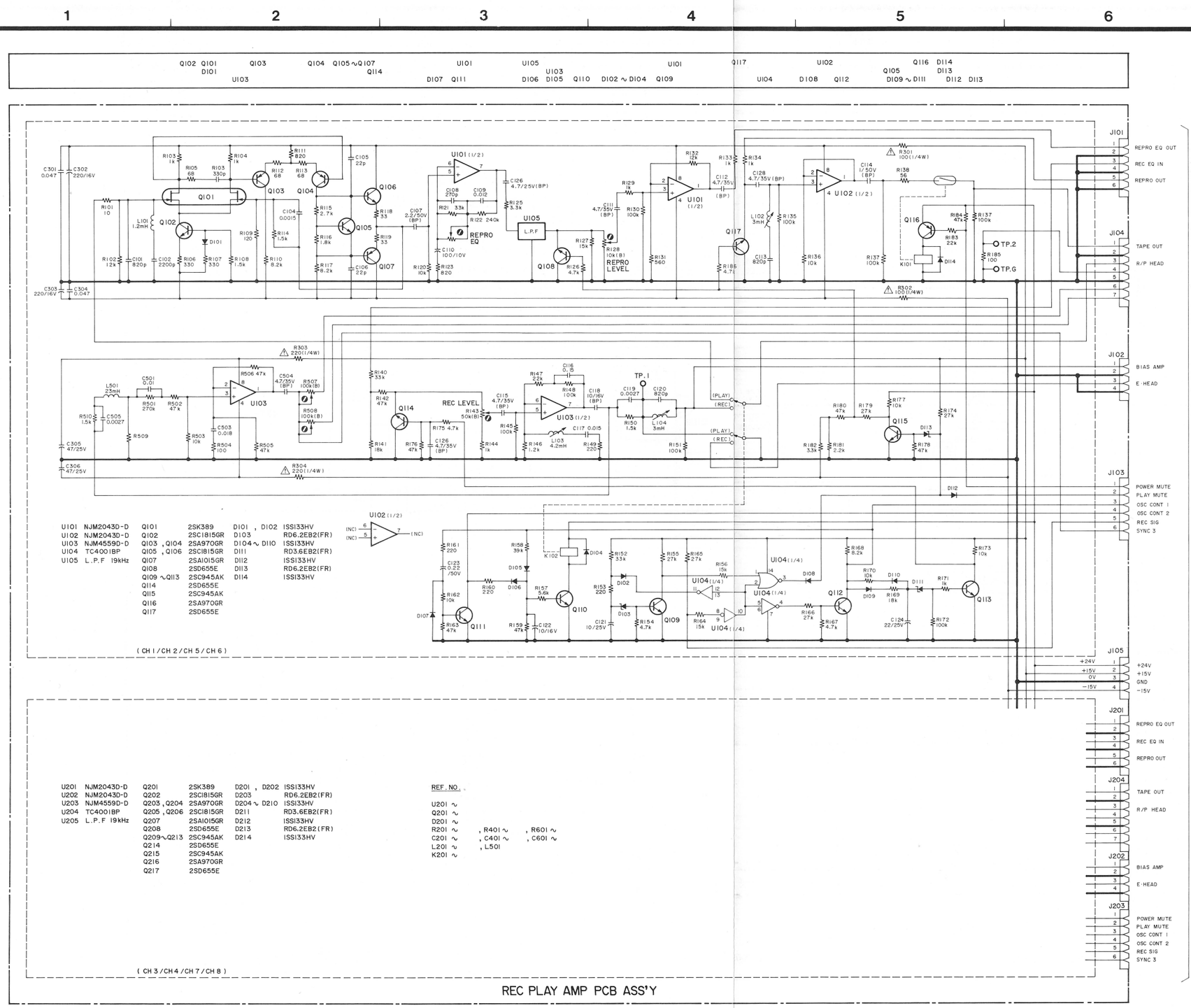
4. SCHEMATIC DIAGRAMS

4-1. Rec/Play PCB Ass'y



U101	NJM2043D-D	Q101	2SK389	D101 , D102	ISS133HV
U102	NJM2043D-D	Q102	2SC1815GR	D103	RD6.2EB2(FR)
U103	NJM4559D-D	Q103 , Q104	2SA970GR	D104 ~ D110	ISS133HV
U104	TC4001BP	Q105 , Q106	2SC1815GR	D111	RD3.6EB2(FR)
U105	L.P.F 19kHz	Q107	2SA1015GR	D112	ISS133HV
		Q108	2SD655E	D113	RD6.2EB2(FR)
		Q109 ~ Q113	2SC945AK	D114	ISS133HV
		Q114	2SD655E		
		Q115	2SC945AK		
		Q116	2SA970GR		
		Q117	2SD655E		

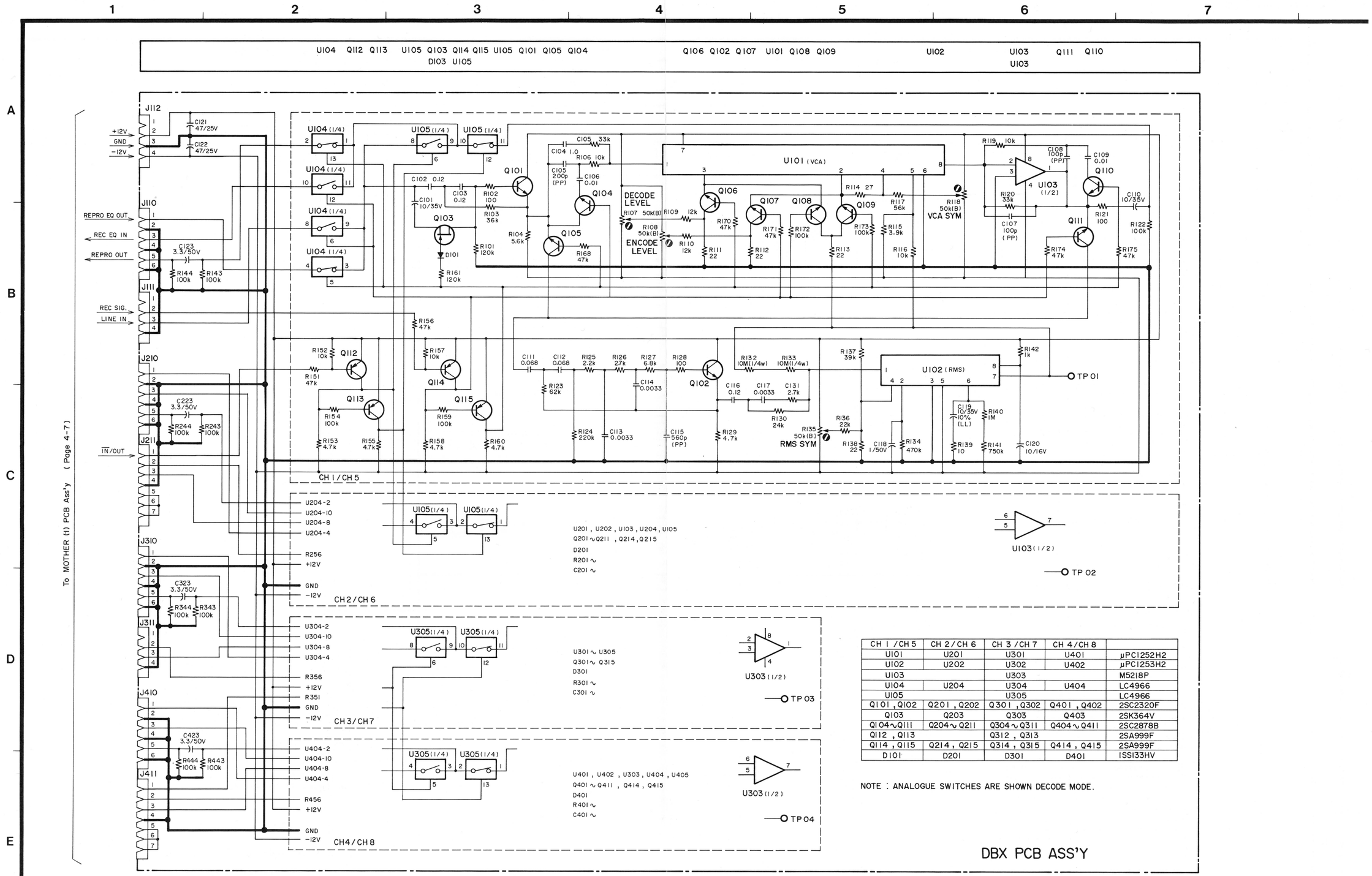
U201	NJM2043D-D	Q201	2SK389	D201 , D202	ISS133HV
U202	NJM2043D-D	Q202	2SC1815GR	D203	RD6.2EB2(FR)
U203	NJM4559D-D	Q203 , Q204	2SA970GR	D204 ~ D210	ISS133HV
U204	TC4001BP	Q205 , Q206	2SC1815GR	D211	RD3.6EB2(FR)
U205	L.P.F 19kHz	Q207	2SA1015GR	D212	ISS133HV
		Q208	2SD655E	D213	RD6.2EB2(FR)
		Q209 ~ Q213	2SC945AK	D214	ISS133HV
		Q214	2SD655E		
		Q215	2SC945AK		
		Q216	2SA970GR		
		Q217	2SD655E		

REF. NO.

U201 ~
Q201 ~
D201 ~
R201 ~ , R401 ~ , R601 ~
C201 ~ , C401 ~ , C601 ~
L201 ~ , L501
K201 ~

REC PLAY AMP PCB ASS'Y

4-2. DBX PCB Ass'y

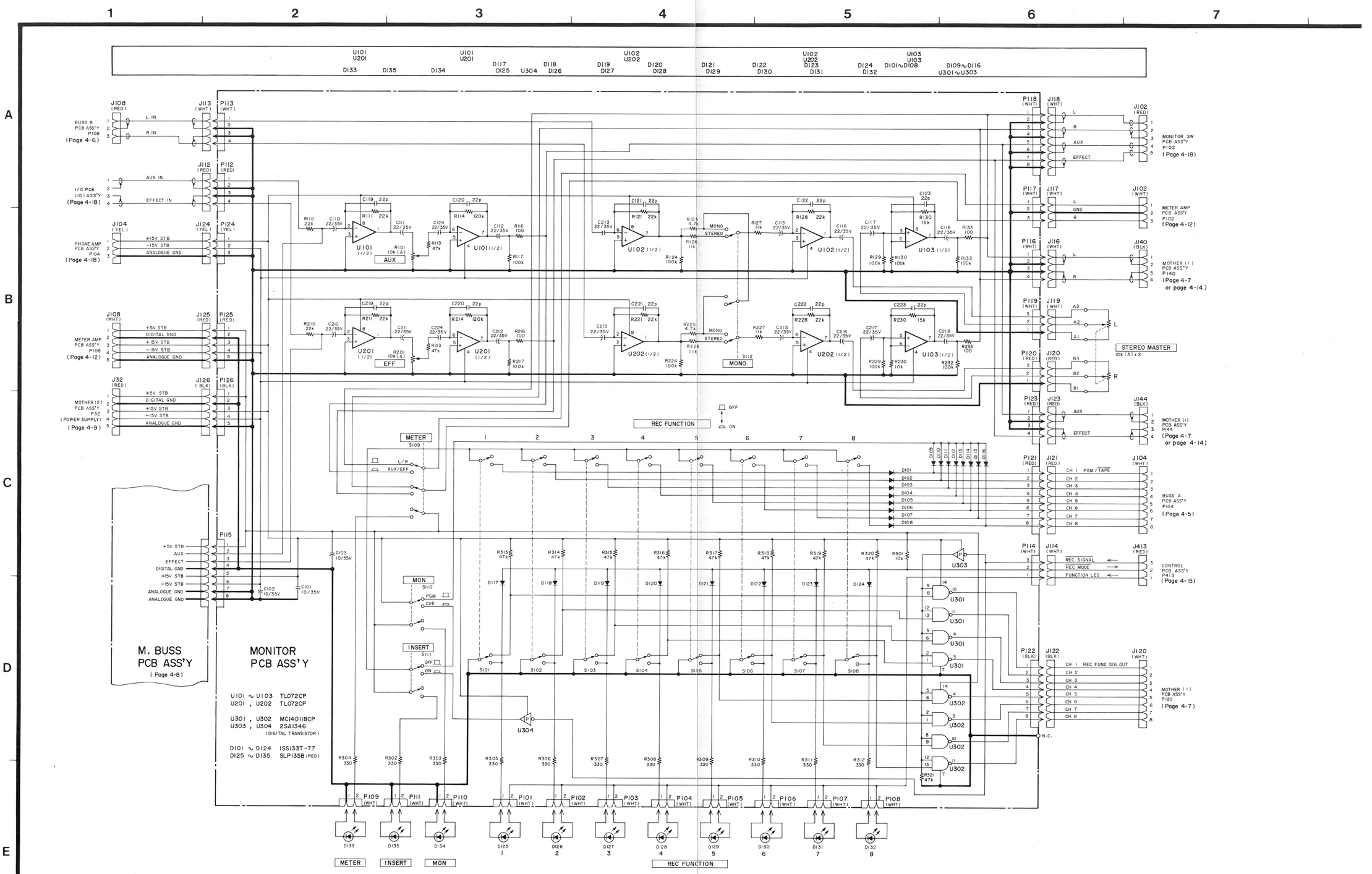


CH 1/CH 5	CH 2/CH 6	CH 3/CH 7	CH 4/CH 8	
U101	U201	U301	U401	μPC1252H2
U102	U202	U302	U402	μPC1253H2
U103		U303		M5218P
U104	U204	U304	U404	LC4966
U105		U305		LC4966
Q101, Q102	Q201, Q202	Q301, Q302	Q401, Q402	2SC2320F
Q103	Q203	Q303	Q403	2SK364V
Q104∿Q111	Q204∿Q211	Q304∿Q311	Q404∿Q411	2SC2878B
Q112, Q113		Q312, Q313		2SA999F
Q114, Q115	Q214, Q215	Q314, Q315	Q414, Q415	2SA999F
D101	D201	D301	D401	ISS133HV

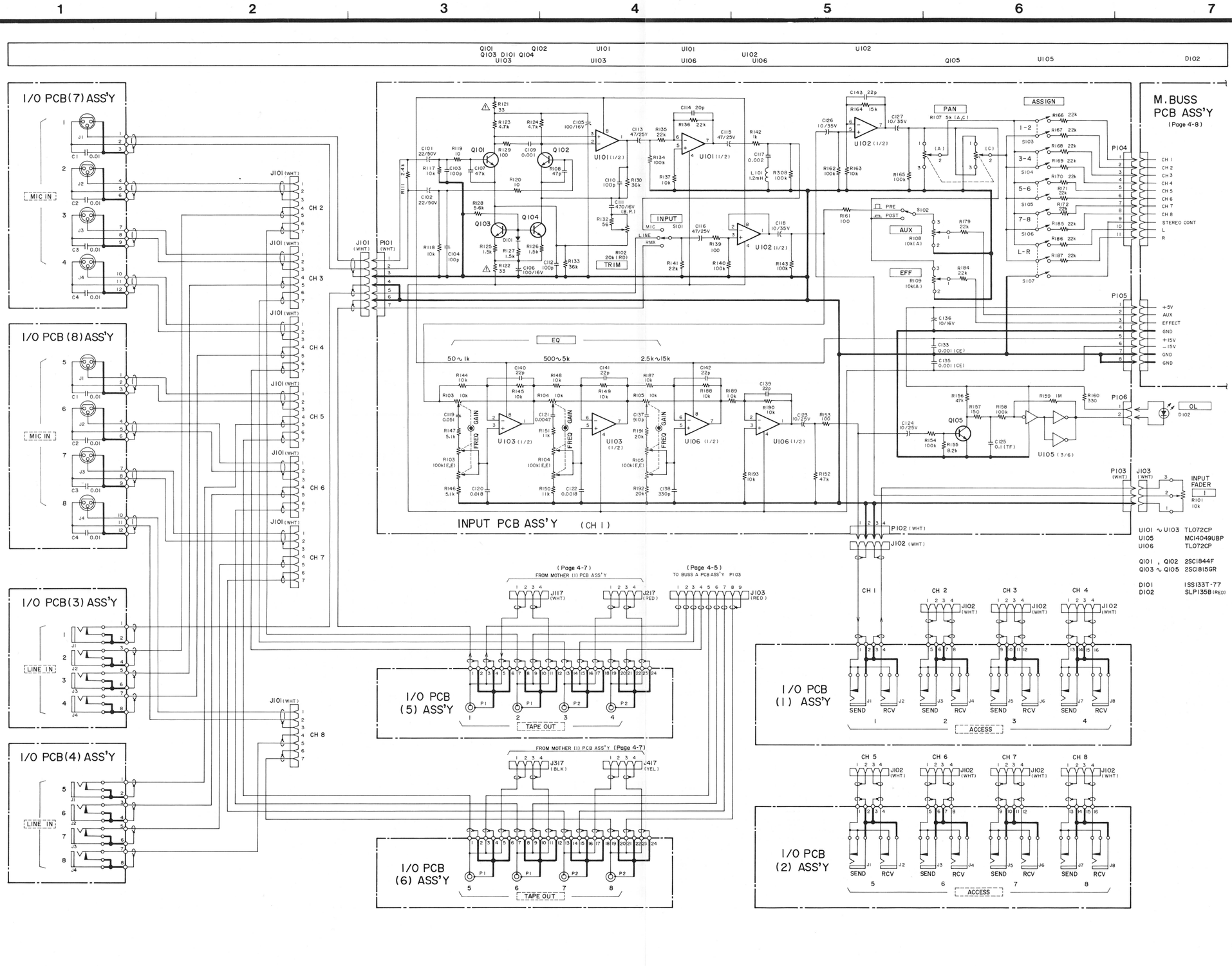
NOTE : ANALOGUE SWITCHES ARE SHOWN DECODE MODE.

DBX PCB ASS'Y

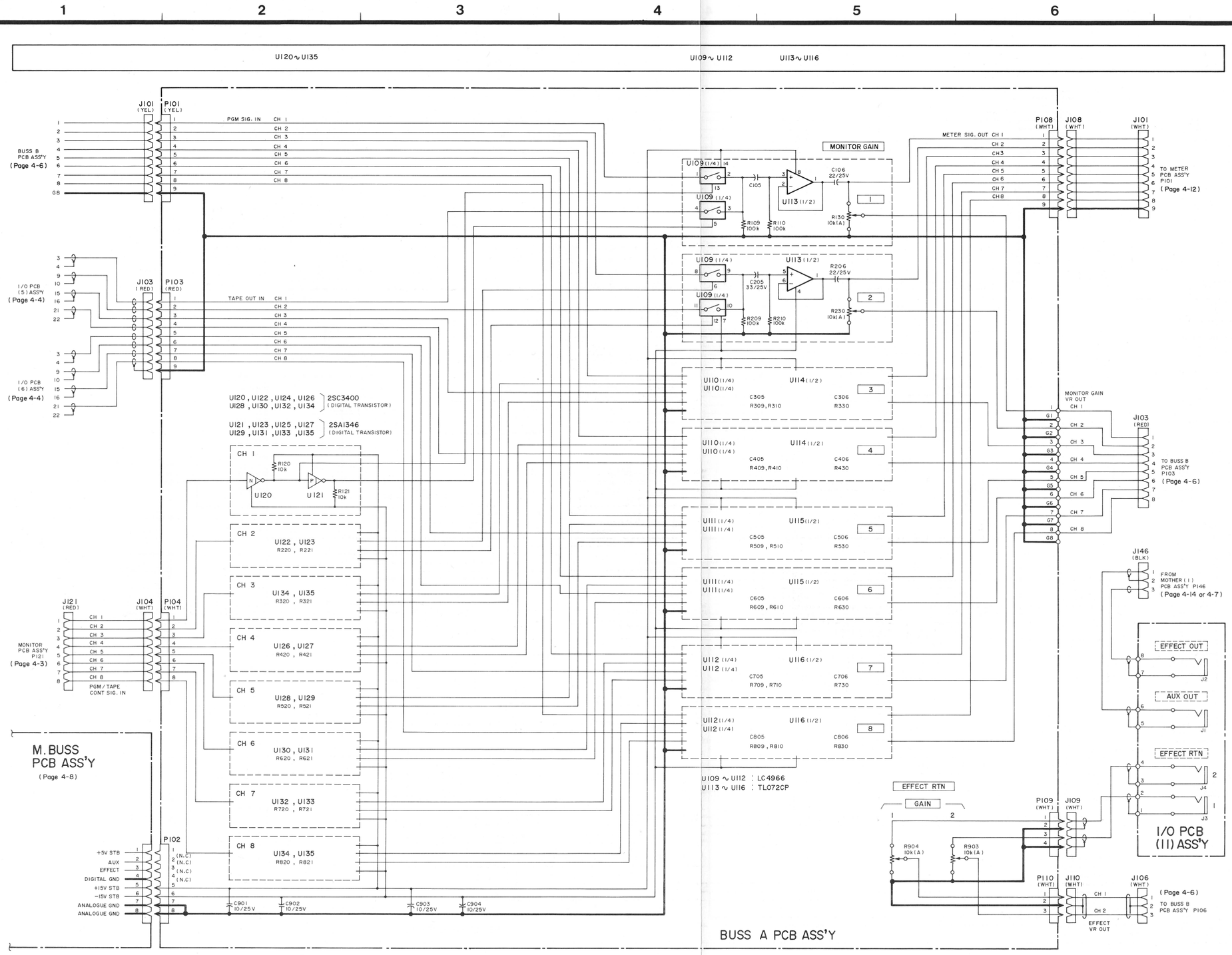
4-3. Monitor PCB Ass'y


M. BUSS PCB ASS'Y (Page 4-8)
MONITOR PCB ASS'Y
U101 ~ U103 TL072CP
U201 , U202 TL072CP
U301 , U302 MCI4011BCP
U303 , U304 2SAI346 (DIGITAL TRANSISTOR)
D101 ~ D124 ISSI33T-77
D125 ~ D135 SLPI35B (RED)
BUSS B PCB ASS'Y P108 (Page 4-6)
I/O PCB (10) ASS'Y (Page 4-18)
PHONE AMP PCB ASS'Y P104 (Page 4-18)
METER AMP PCB ASS'Y P108 (Page 4-12)
MOTHER (2) PCB ASS'Y P32 (POWER SUPPLY) (Page 4-9)
MONITOR SW PCB ASS'Y P102 (Page 4-18)
METER AMP PCB ASS'Y P102 (Page 4-12)
MOTHER (1) PCB ASS'Y P140 (Page 4-7 or page 4-14)
STEREO MASTER 10k (A) x 2
MOTHER (1) PCB ASS'Y P144 (Page 4-7 or page 4-14)
BUSS A PCB ASS'Y P104 (Page 4-5)
CONTROL PCB ASS'Y P413 (Page 4-15)
MOTHER (1) PCB ASS'Y P120 (Page 4-7)
METER
INSERT
MON
REC FUNCTION
MONO
STEREO
AUX
EFF

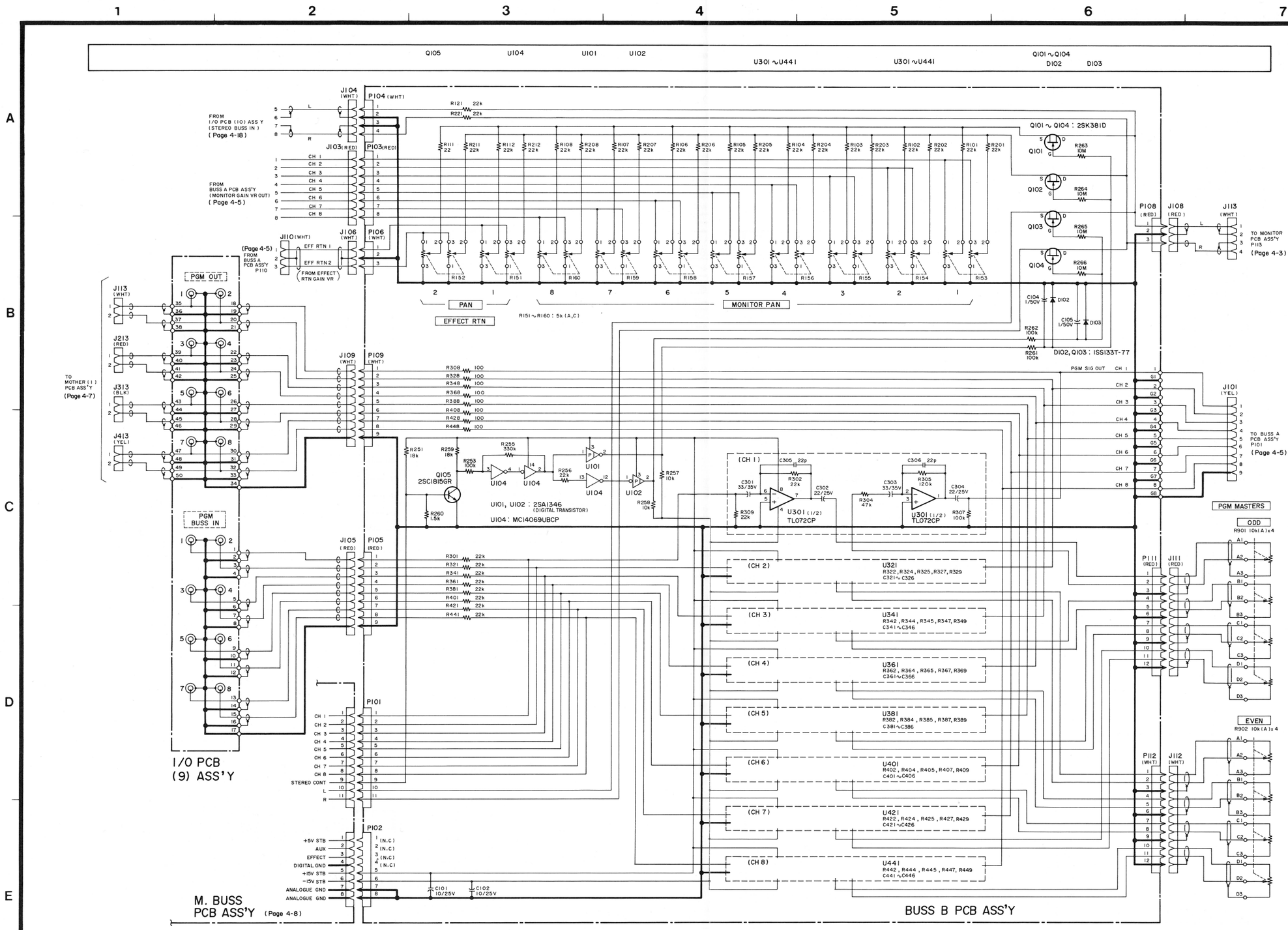
4-4. Mixer Input Section



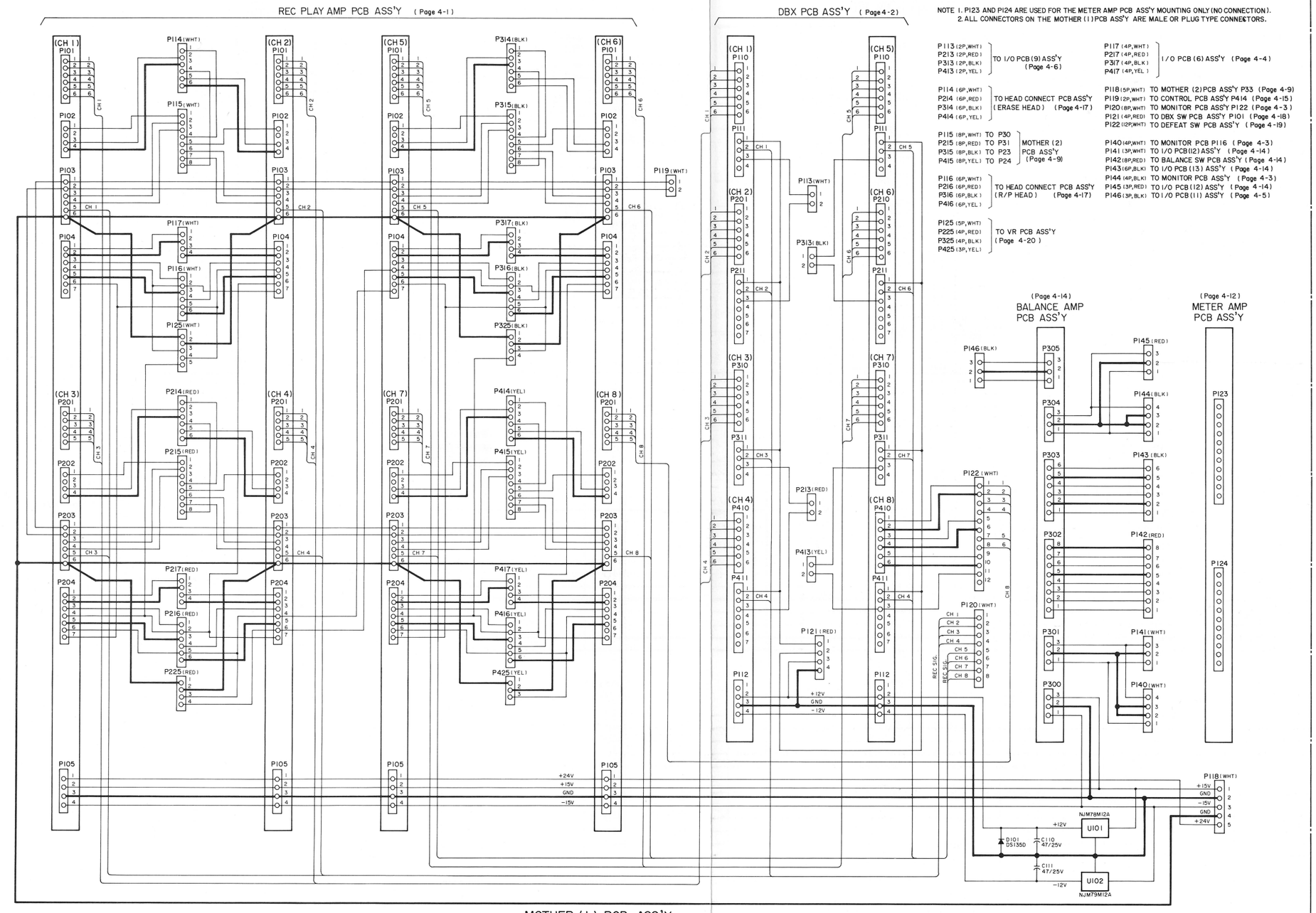
4-5. Buss A PCB


1
2
3
4
5
6
7
A
B
C
D
E
U120∿U135
U109∿U112
U113∿U116
J101 (YEL)
P101 (YEL)
PGM SIG. IN
CH 1
CH 2
CH 3
CH 4
CH 5
CH 6
CH 7
CH 8
BUSS B PCB ASS'Y (Page 4-6)
I/O PCB (5) ASS'Y (Page 4-4)
I/O PCB (6) ASS'Y (Page 4-4)
J103 (RED)
P103 (RED)
TAPE OUT IN
U120, U122, U124, U126 U128, U130, U132, U134 2SC3400 (DIGITAL TRANSISTOR)
U121, U123, U125, U127 U129, U131, U133, U135 2SA1346 (DIGITAL TRANSISTOR)
CH 1 U120 U121 R120 10k R121 10k
CH 2 U122, U123 R220, R221
CH 3 U134, U135 R320, R321
CH 4 U126, U127 R420, R421
CH 5 U128, U129 R520, R521
CH 6 U130, U131 R620, R621
CH 7 U132, U133 R720, R721
CH 8 U134, U135 R820, R821
J121 (RED)
J104 (WHT)
P104 (WHT)
MONITOR PCB ASS'Y P121 (Page 4-3)
PGM / TAPE CONT SIG. IN
M. BUSS PCB ASS'Y (Page 4-8)
P102
+5V STB
AUX
EFFECT
DIGITAL GND
+15V STB
-15V STB
ANALOGUE GND
ANALOGUE GND
(N.C)
C901 10/25V
C902 10/25V
C903 10/25V
C904 10/25V
MONITOR GAIN
U109(1/4) U113(1/2) C105 C106 22/25V R109 100k R110 100k R130 10k(A)
U109(1/4) U113(1/2) C205 33/25V R206 22/25V R209 100k R210 100k R230 10k(A)
U110(1/4) U114(1/2) C305 C306 R309, R310 R330
U110(1/4) U114(1/2) C405 C406 R409, R410 R430
U111(1/4) U115(1/2) C505 C506 R509, R510 R530
U111(1/4) U115(1/2) C605 C606 R609, R610 R630
U112(1/4) U116(1/2) C705 C706 R709, R710 R730
U112(1/4) U116(1/2) C805 C806 R809, R810 R830
U109 ∿ U112 : LC4966
U113 ∿ U116 : TL072CP
METER SIG. OUT CH 1
P108 (WHT)
J108 (WHT)
J101 (WHT)
TO METER PCB ASS'Y P101 (Page 4-12)
MONITOR GAIN VR OUT
J103 (RED)
TO BUSS B PCB ASS'Y P103 (Page 4-6)
J146 (BLK)
FROM MOTHER (1) PCB ASS'Y P146 (Page 4-14 or 4-7)
EFFECT OUT
J2
AUX OUT
J1
EFFECT RTN
J4
J3
I/O PCB (11) ASS'Y
EFFECT RTN
GAIN
R904 10k(A)
R903 10k(A)
P109 (WHT)
J109 (WHT)
P110 (WHT)
J110 (WHT)
J106 (WHT)
(Page 4-6)
TO BUSS B PCB ASS'Y P106
EFFECT VR OUT
BUSS A PCB ASS'Y

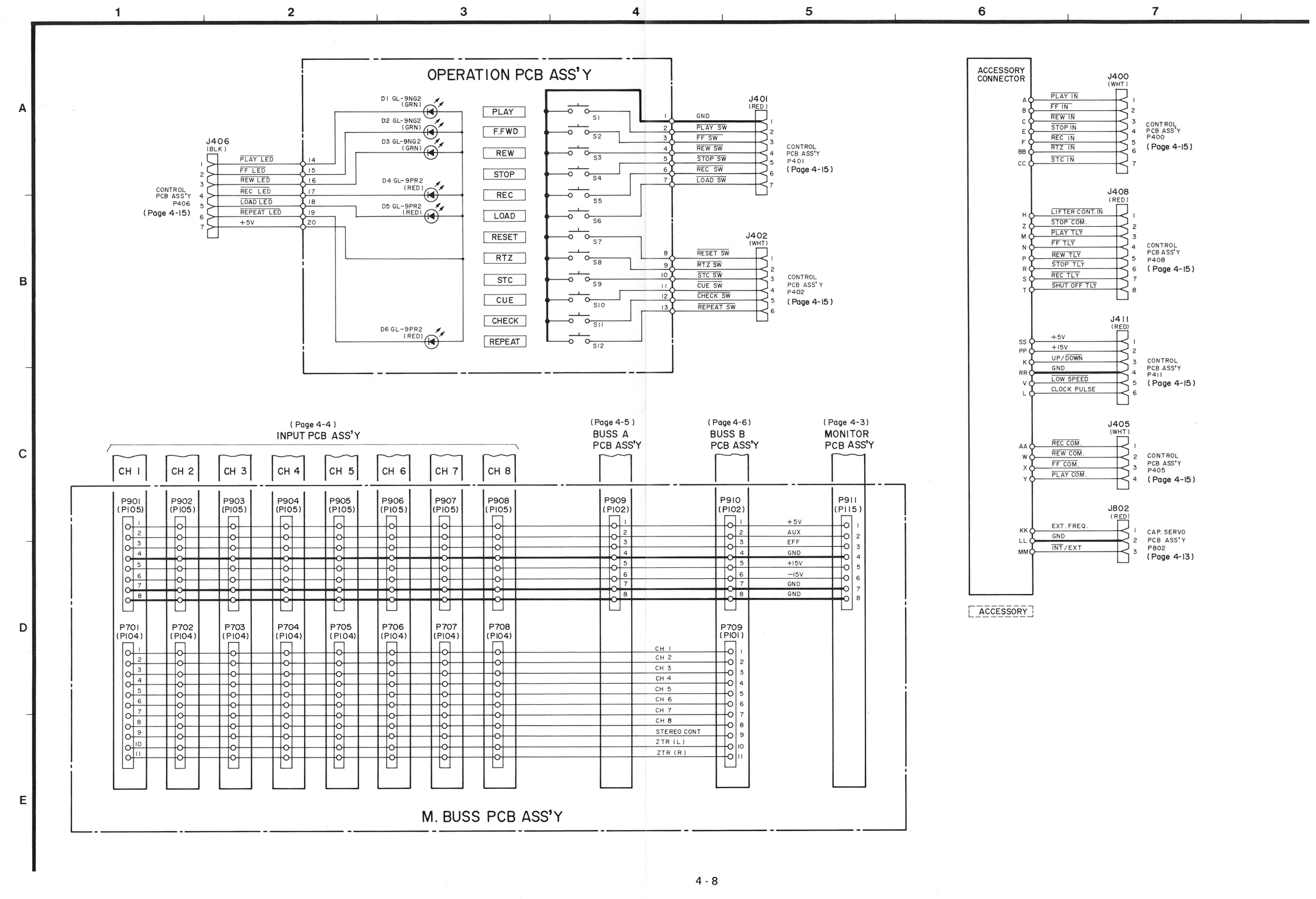
4-6. Buss B Ass'y



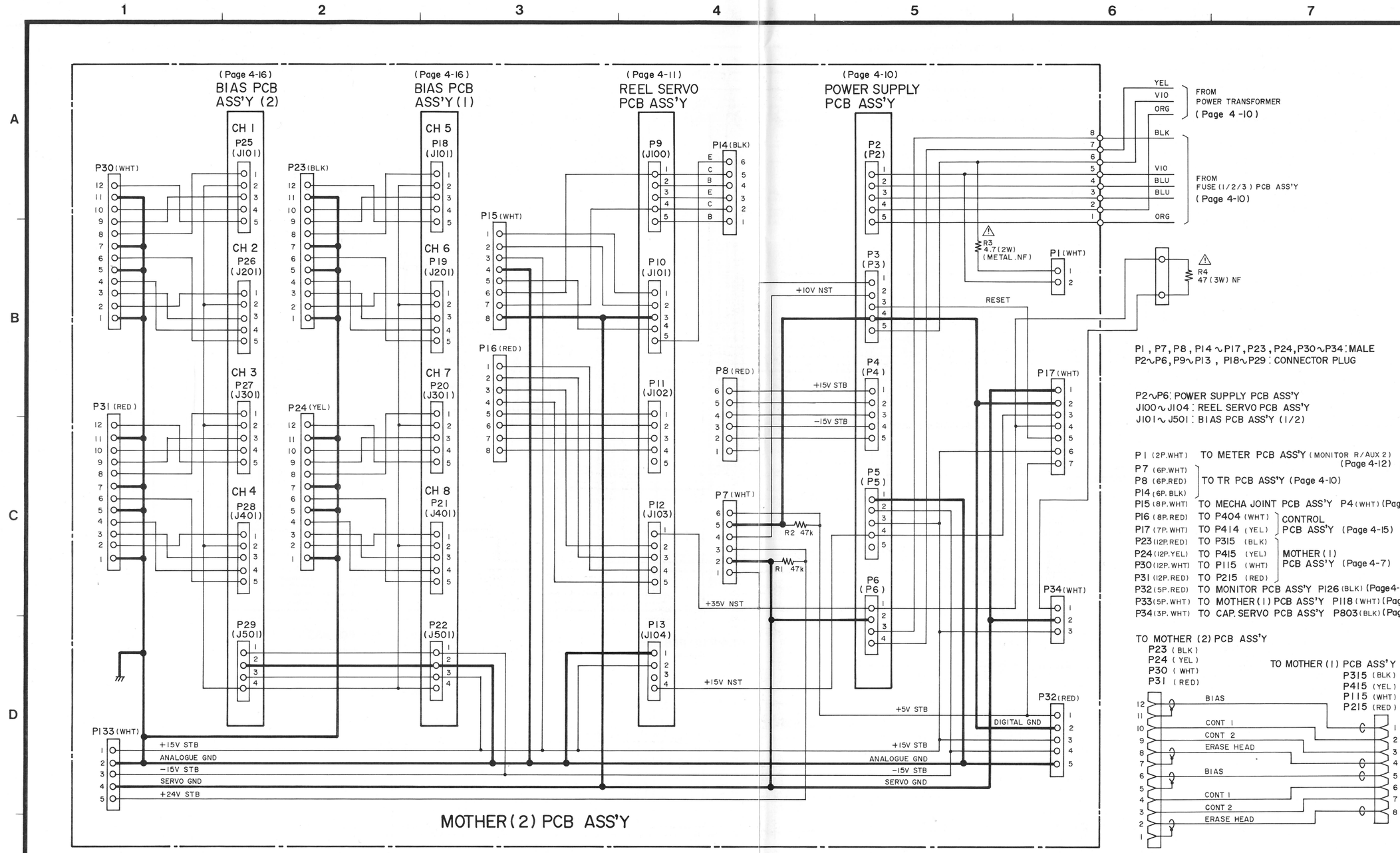
4-7. Mother (1) PCB Ass'y


REC PLAY AMP PCB ASS'Y (Page 4-1)
DBX PCB ASS'Y (Page 4-2)
NOTE 1. P123 AND P124 ARE USED FOR THE METER AMP PCB ASS'Y MOUNTING ONLY (NO CONNECTION).
2. ALL CONNECTORS ON THE MOTHER (1) PCB ASS'Y ARE MALE OR PLUG TYPE CONNECTORS.
P113 (2P,WHT) P213 (2P,RED) P313 (2P,BLK) P413 (2P,YEL) TO I/O PCB (9) ASS'Y (Page 4-6)
P117 (4P,WHT) P217 (4P,RED) P317 (4P,BLK) P417 (4P,YEL) I/O PCB (6) ASS'Y (Page 4-4)
P114 (6P,WHT) P214 (6P,RED) P314 (6P,BLK) P414 (6P,YEL) TO HEAD CONNECT PCB ASS'Y (ERASE HEAD) (Page 4-17)
P118 (5P,WHT) TO MOTHER (2) PCB ASS'Y P33 (Page 4-9)
P119 (2P,WHT) TO CONTROL PCB ASS'Y P414 (Page 4-15)
P120 (8P,WHT) TO MONITOR PCB ASS'Y P122 (Page 4-3)
P121 (4P,RED) TO DBX SW PCB ASS'Y P101 (Page 4-18)
P122 (12P,WHT) TO DEFEAT SW PCB ASS'Y (Page 4-19)
P115 (8P,WHT) TO P30
P215 (8P,RED) TO P31
P315 (8P,BLK) TO P23
P415 (8P,YEL) TO P24
MOTHER (2) PCB ASS'Y (Page 4-9)
P140 (4P,WHT) TO MONITOR PCB P116 (Page 4-3)
P141 (3P,WHT) TO I/O PCB (12) ASS'Y (Page 4-14)
P142 (8P,RED) TO BALANCE SW PCB ASS'Y (Page 4-14)
P143 (6P,BLK) TO I/O PCB (13) ASS'Y (Page 4-14)
P144 (4P,BLK) TO MONITOR PCB ASS'Y (Page 4-3)
P145 (3P,RED) TO I/O PCB (12) ASS'Y (Page 4-14)
P146 (3P,BLK) TO I/O PCB (11) ASS'Y (Page 4-5)
P116 (6P,WHT) P216 (6P,RED) P316 (6P,BLK) P416 (6P,YEL) TO HEAD CONNECT PCB ASS'Y (R/P HEAD) (Page 4-17)
P125 (5P,WHT) P225 (4P,RED) P325 (4P,BLK) P425 (3P,YEL) TO VR PCB ASS'Y (Page 4-20)
(Page 4-14) BALANCE AMP PCB ASS'Y
(Page 4-12) METER AMP PCB ASS'Y
P123
P124
P118 (WHT) +15V GND −15V GND +24V
NJM78M12A U101 +12V
NJM79M12A U102 −12V
D101 DS1350D
C110 47/25V
C111 47/25V
REC SIG.
PLAY SIG.
+12V GND −12V
+24V +15V GND −15V
MOTHER (1) PCB ASS'Y

4-8. M Buss PCB Ass'y Operation PCB Ass'y Accessory Connector



4-9. Mother (2) PCB Ass'y



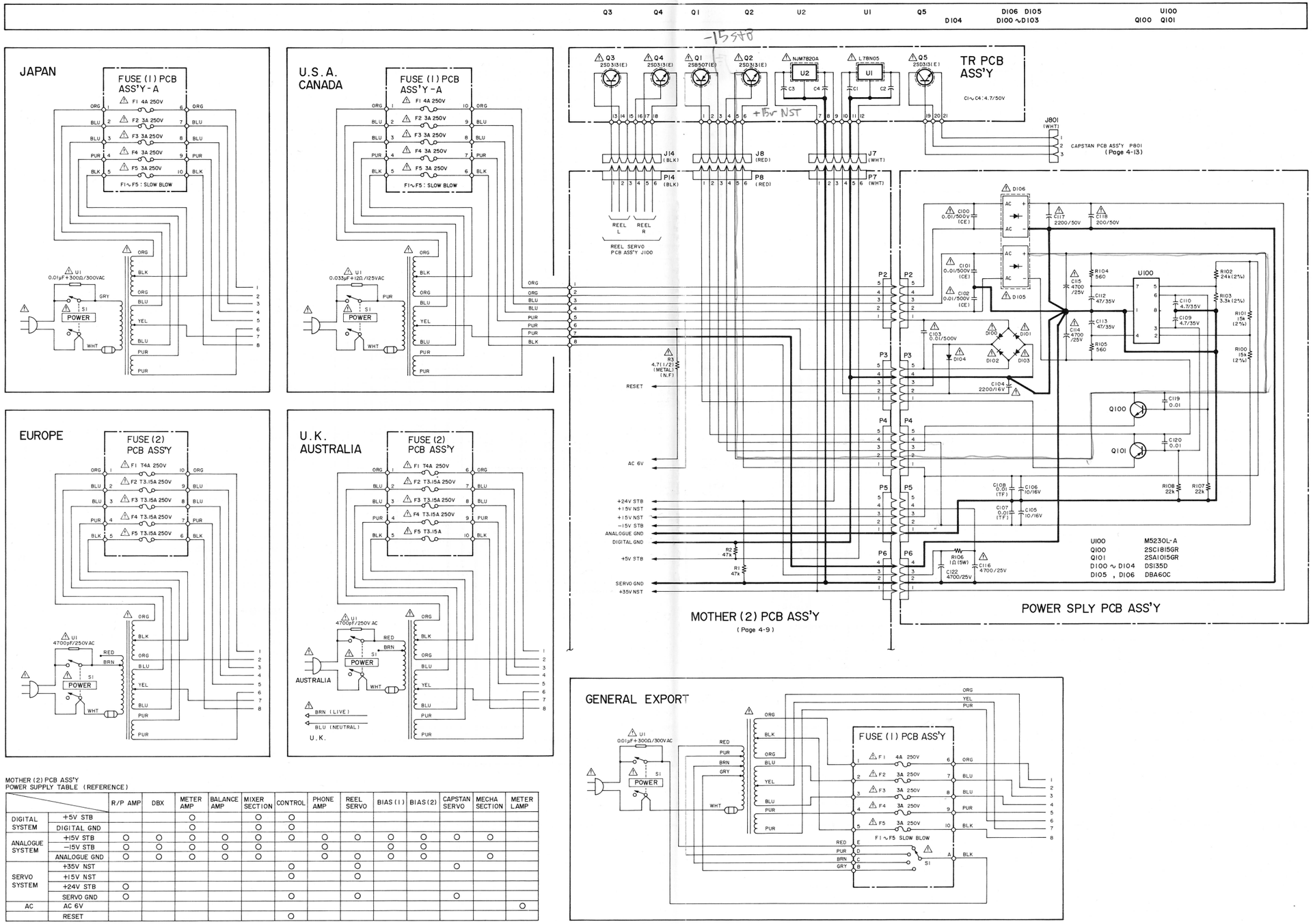
P1, P7, P8, P14 ∿ P17, P23, P24, P30 ∿ P34 : MALE
P2 ∿ P6, P9 ∿ P13, P18 ∿ P29 : CONNECTOR PLUG

P2 ∿ P6 : POWER SUPPLY PCB ASS'Y
J100 ∿ J104 : REEL SERVO PCB ASS'Y
J101 ∿ J501 : BIAS PCB ASS'Y (1/2)

P1 (2P.WHT)	TO METER PCB ASS'Y (MONITOR R/AUX 2) (Page 4-12)	
P7 (6P.WHT)	TO TR PCB ASS'Y (Page 4-10)	
P8 (6P.RED)		
P14 (6P.BLK)		
P15 (8P.WHT)	TO MECHA JOINT PCB ASS'Y P4 (WHT) (Page 4-17)	
P16 (8P.RED)	TO P404 (WHT)	CONTROL PCB ASS'Y (Page 4-15)
P17 (7P.WHT)	TO P414 (YEL)	
P23 (12P.RED)	TO P315 (BLK)	MOTHER (1) PCB ASS'Y (Page 4-7)
P24 (12P.YEL)	TO P415 (YEL)	
P30 (12P.WHT)	TO P115 (WHT)	
P31 (12P.RED)	TO P215 (RED)	
P32 (5P.RED)	TO MONITOR PCB ASS'Y P126 (BLK) (Page 4-3)	
P33 (5P.WHT)	TO MOTHER (1) PCB ASS'Y P118 (WHT) (Page 4-7)	
P34 (3P.WHT)	TO CAP. SERVO PCB ASS'Y P803 (BLK) (Page 4-13)	

TO MOTHER (2) PCB ASS'Y
P23 (BLK)
P24 (YEL)
P30 (WHT)
P31 (RED)

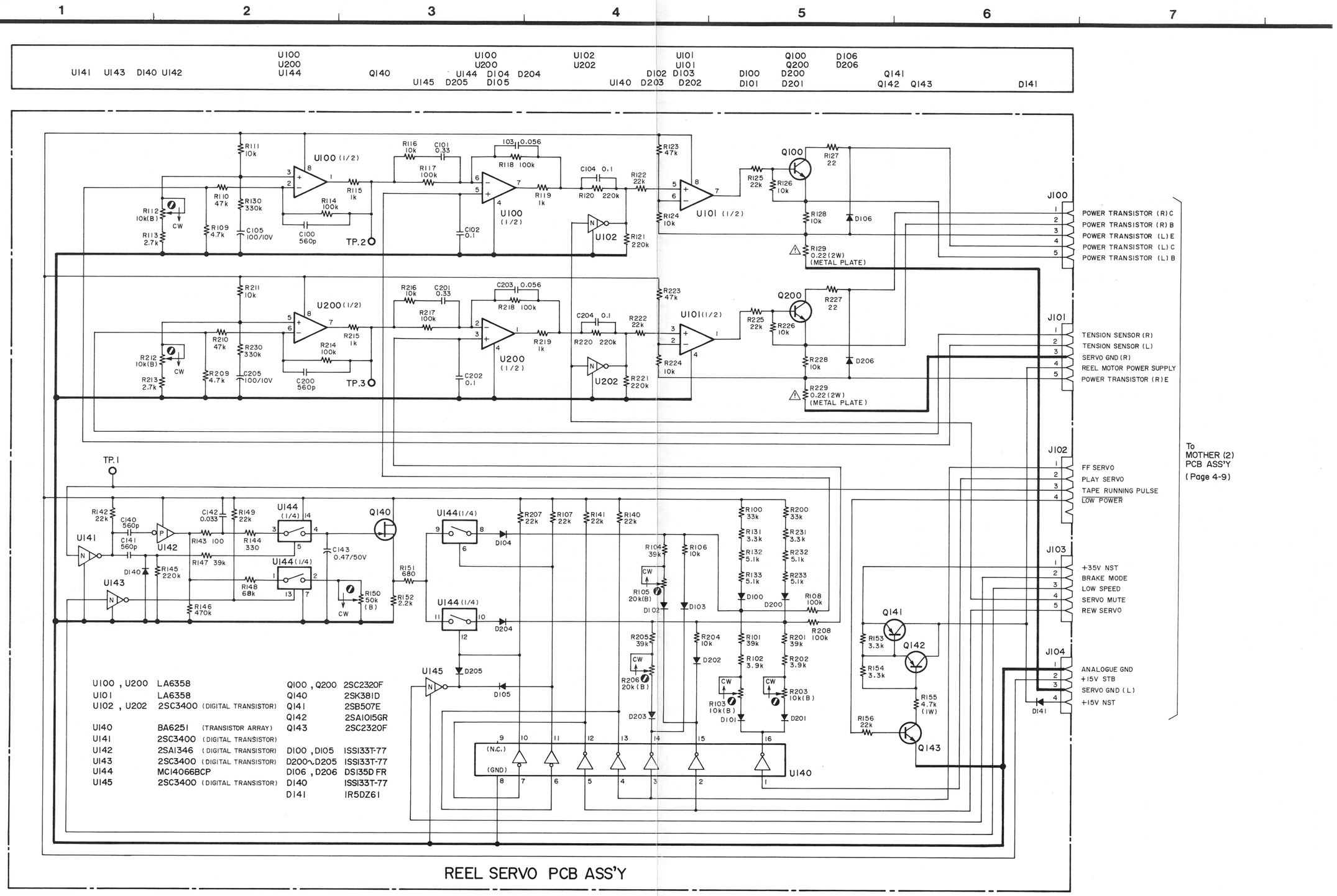
TO MOTHER (1) PCB ASS'Y
P315 (BLK)
P415 (YEL)
P115 (WHT)
P215 (RED)



MOTHER (2) PCB ASS'Y
POWER SUPPLY TABLE (REFERENCE)

		R/P AMP	DBX	METER AMP	BALANCE AMP	MIXER SECTION	CONTROL	PHONE AMP	REEL SERVO	BIAS(1)	BIAS(2)	CAPSTAN SERVO	MECHA SECTION	METER LAMP
DIGITAL SYSTEM	+5V STB			○		○	○							
	DIGITAL GND			○		○	○							
ANALOGUE SYSTEM	+15V STB	○	○	○	○	○	○	○	○	○	○	○	○	
	−15V STB	○	○	○	○	○		○	○	○	○			
	ANALOGUE GND	○	○	○	○	○		○	○	○	○		○	
SERVO SYSTEM	+35V NST						○		○			○		
	+15V NST						○		○					
	+24V STB	○												
	SERVO GND	○					○		○			○		
AC	AC 6V													○
	RESET						○							

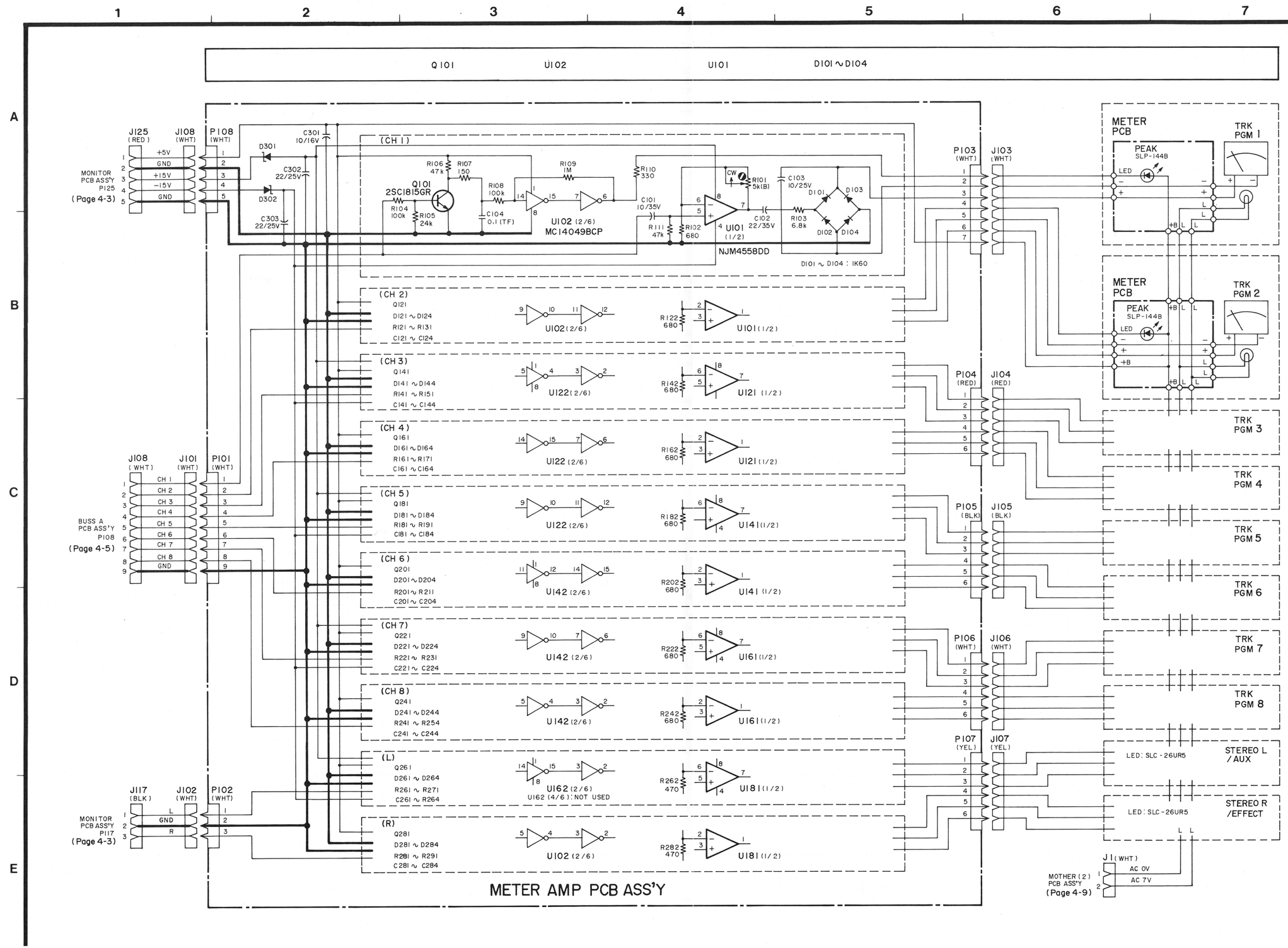
4-11. Reel Servo PCB Ass'y



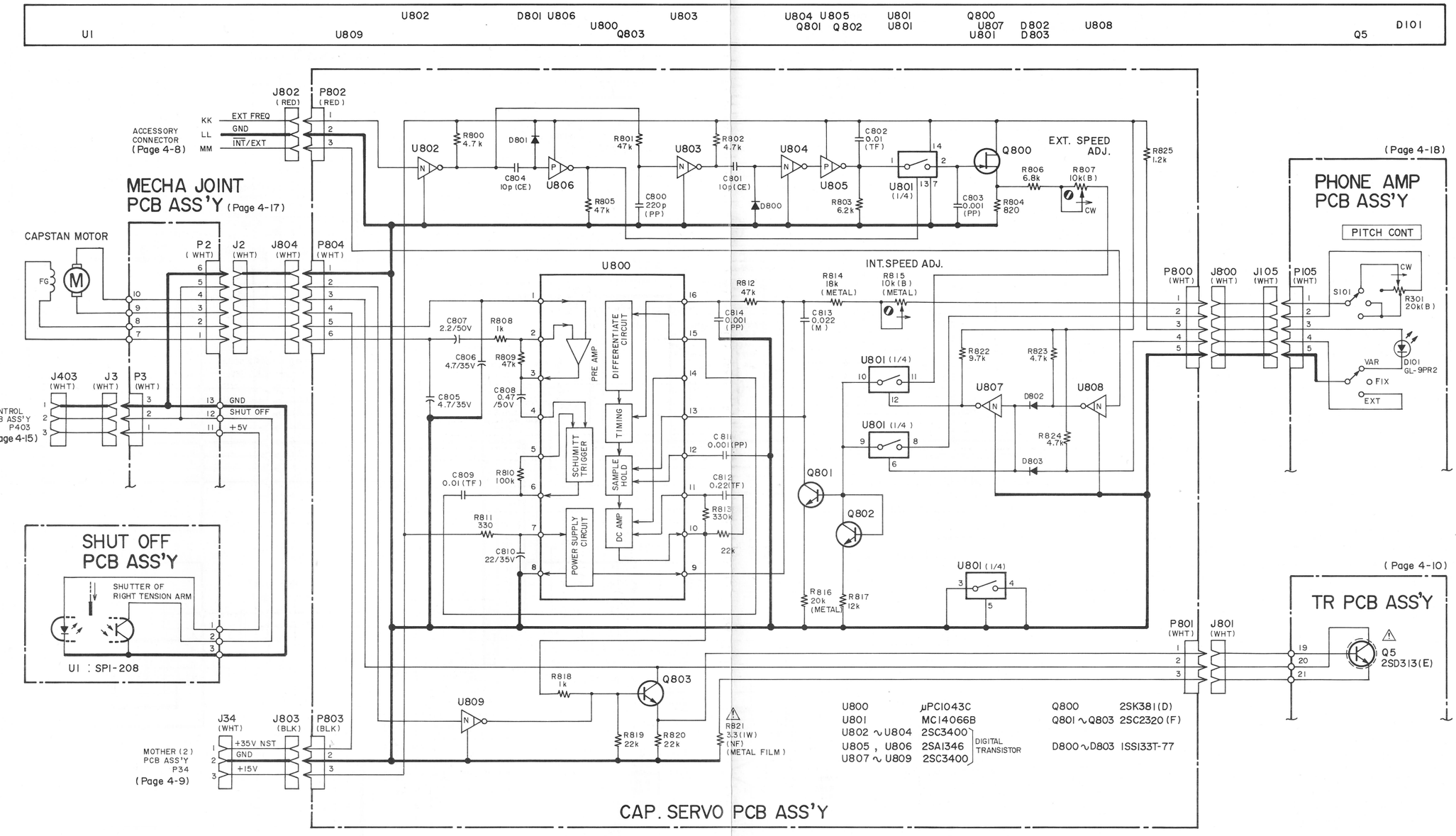
U100 , U200	LA6358		Q100 , Q200	2SC2320F
U101	LA6358		Q140	2SK381D
U102 , U202	2SC3400	(DIGITAL TRANSISTOR)	Q141	2SB507E
			Q142	2SA1015GR
U140	BA6251	(TRANSISTOR ARRAY)	Q143	2SC2320F
U141	2SC3400	(DIGITAL TRANSISTOR)		
U142	2SA1346	(DIGITAL TRANSISTOR)	DI00 , DI05	ISSI33T-77
U143	2SC3400	(DIGITAL TRANSISTOR)	D200~D205	ISSI33T-77
U144	MC14066BCP		DI06 , D206	DSI35D FR
U145	2SC3400	(DIGITAL TRANSISTOR)	DI40	ISSI33T-77
			DI41	IR5DZ61

REEL SERVO PCB ASS'Y

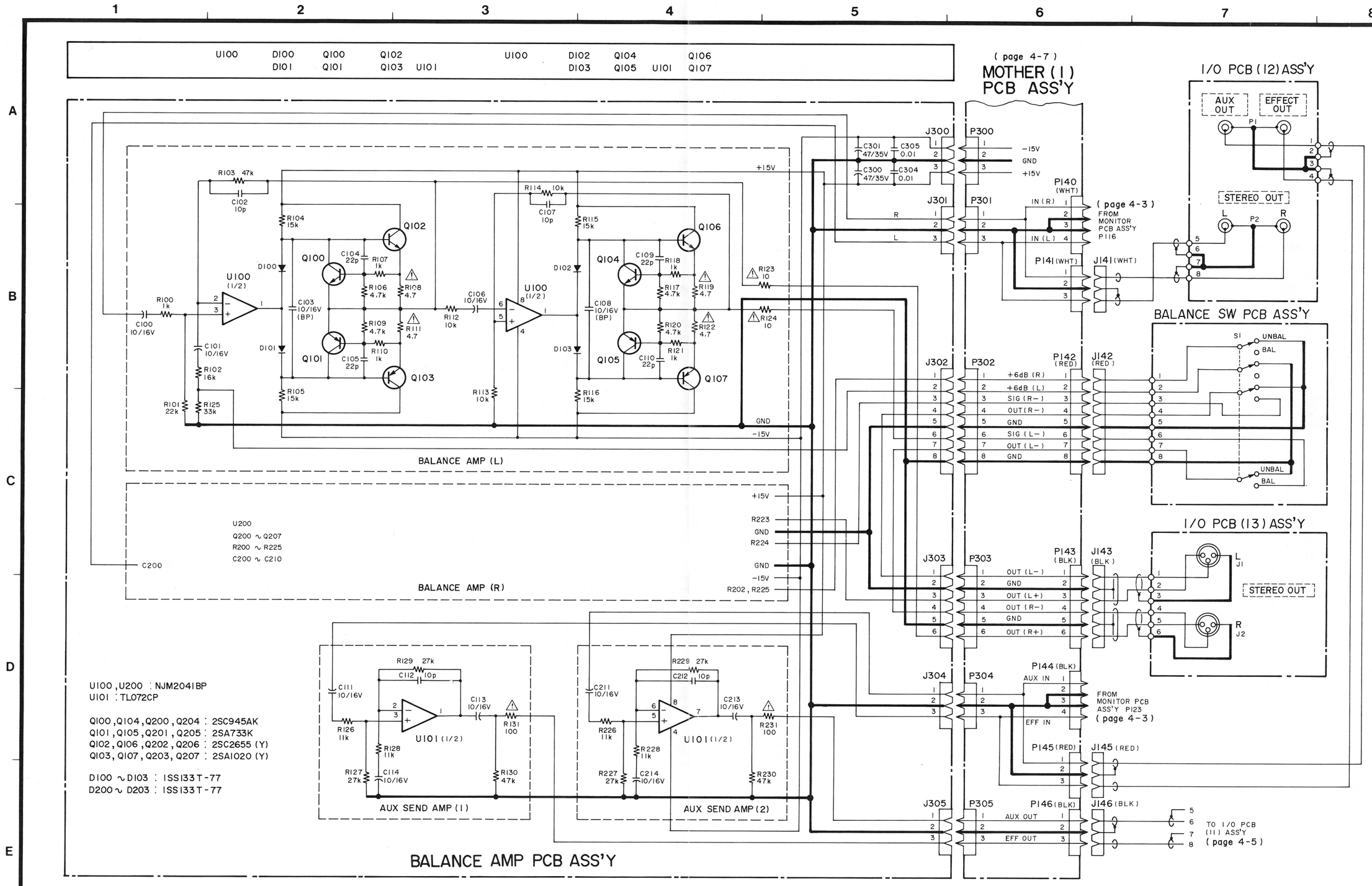
4-12. Meter Amp PCB Ass'y



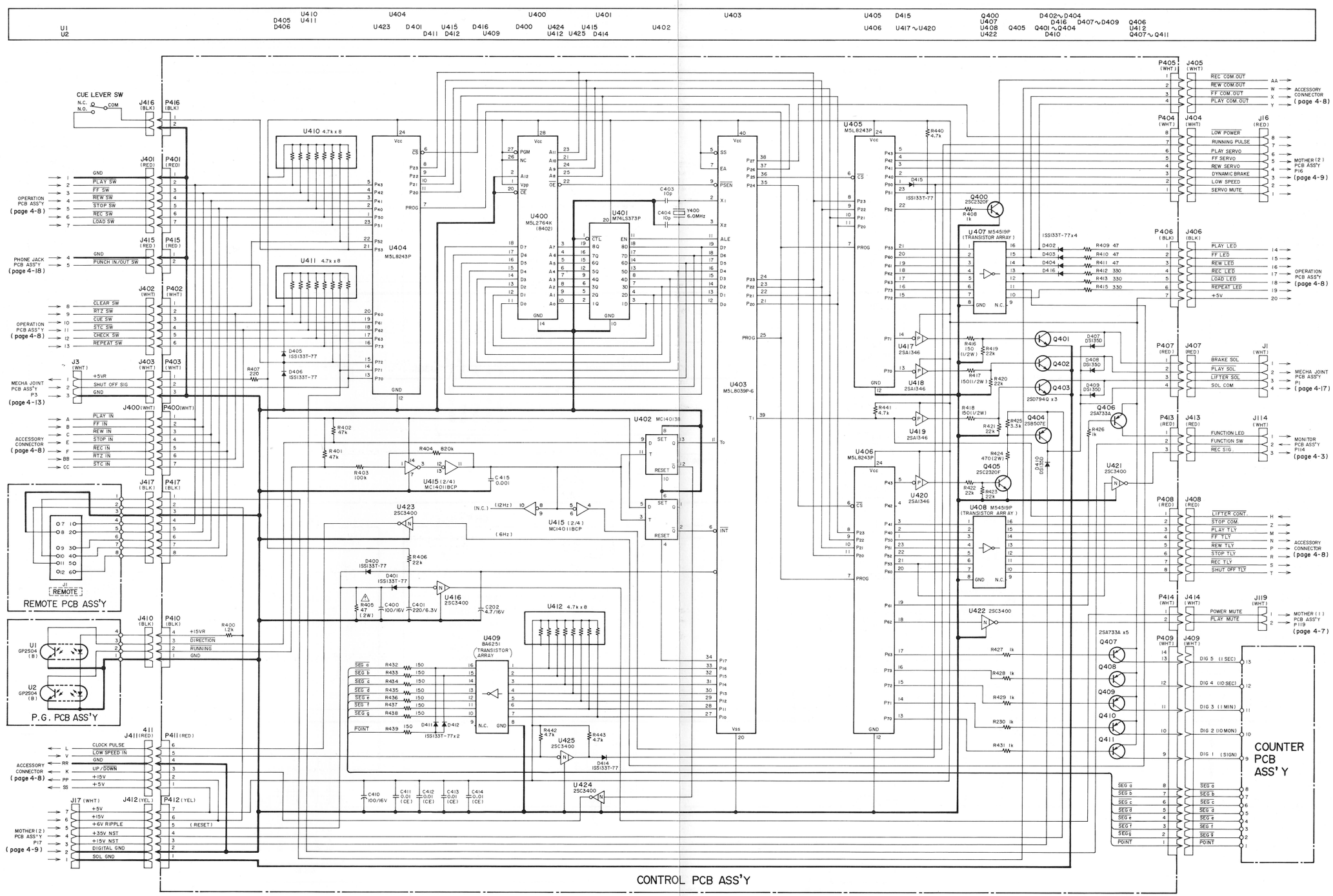
4-13. Cap. Servo PCB Ass'y



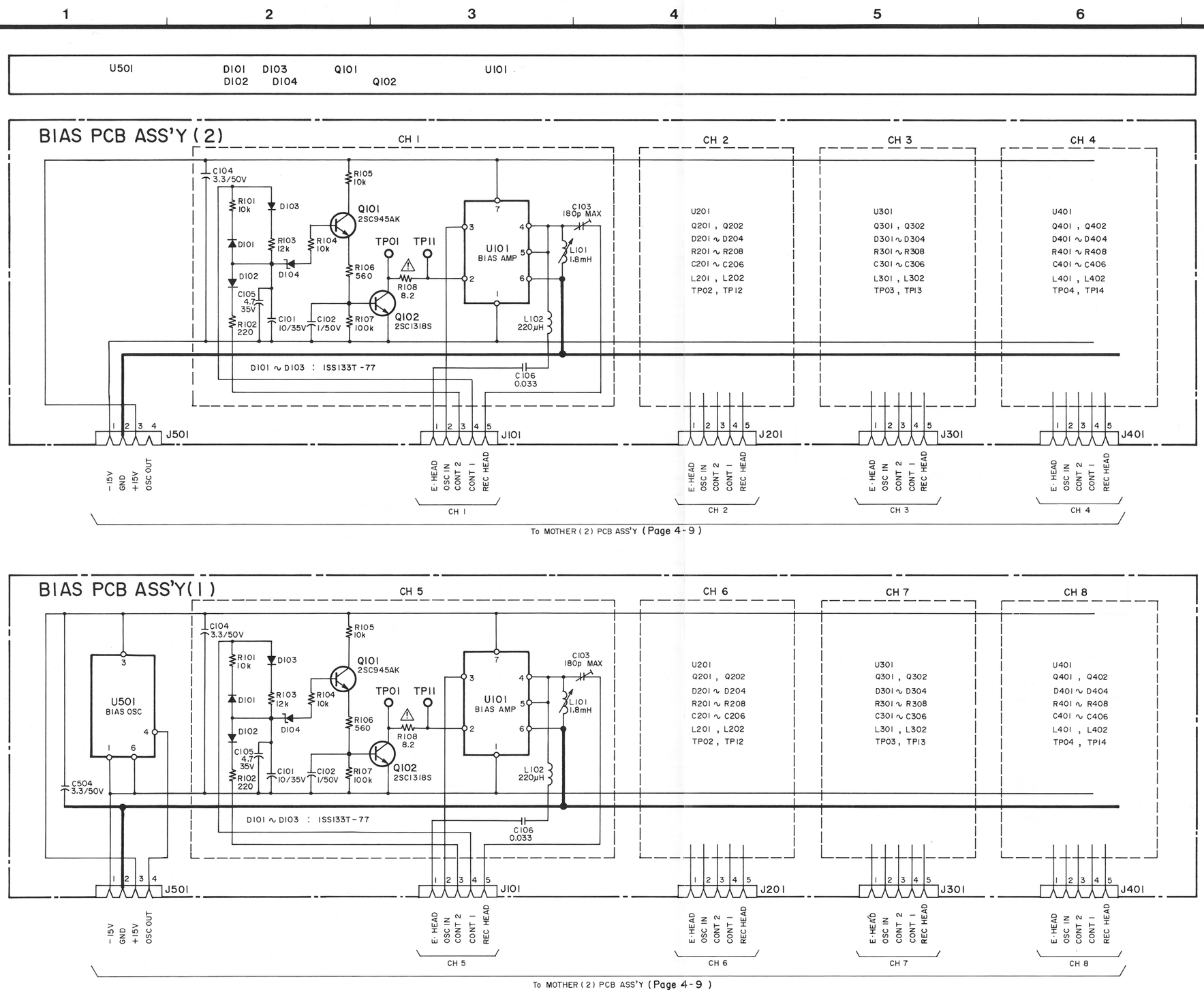
4-14. Balance Amp PCB Ass'y



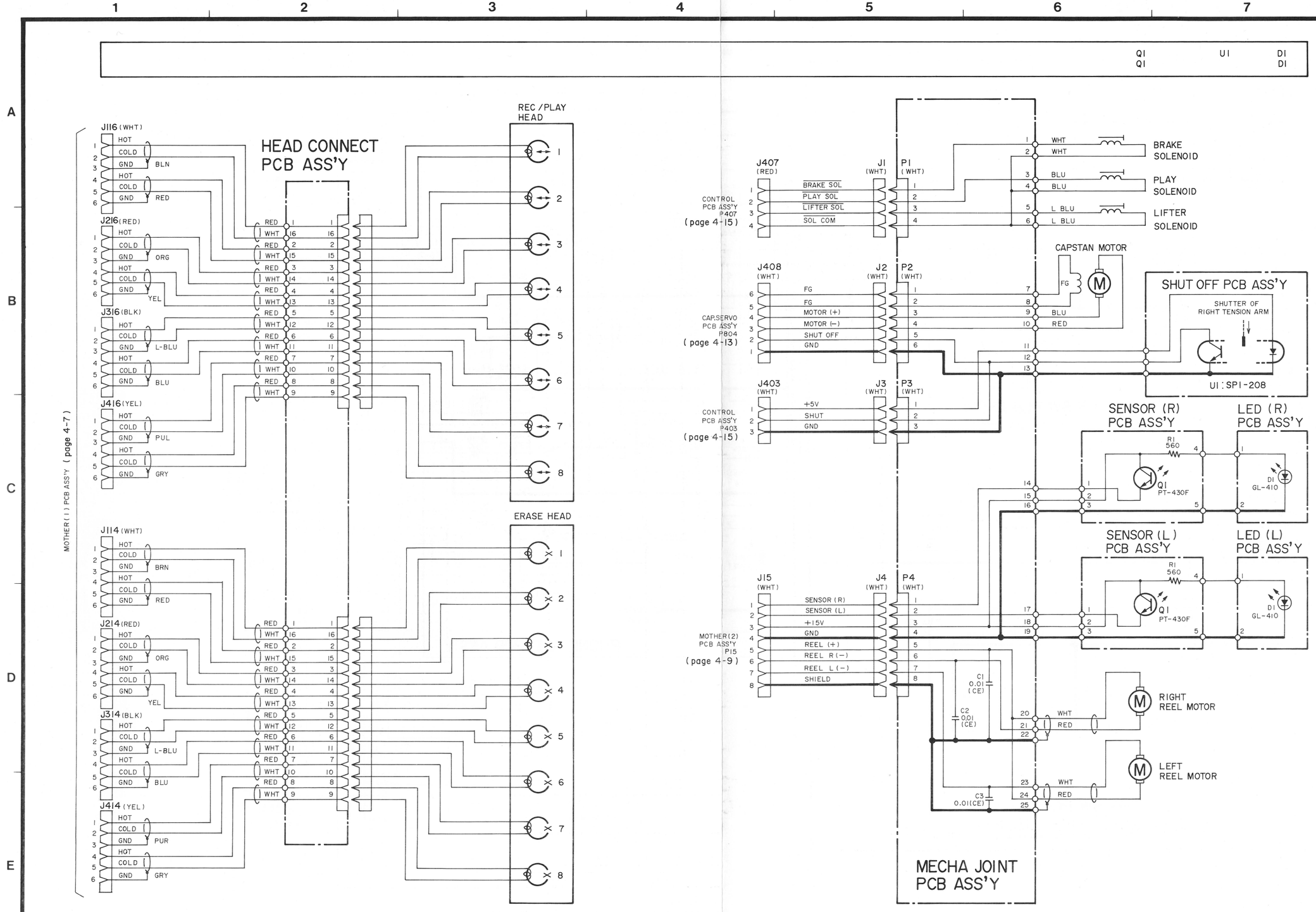
4-15. Control PCB Ass'y



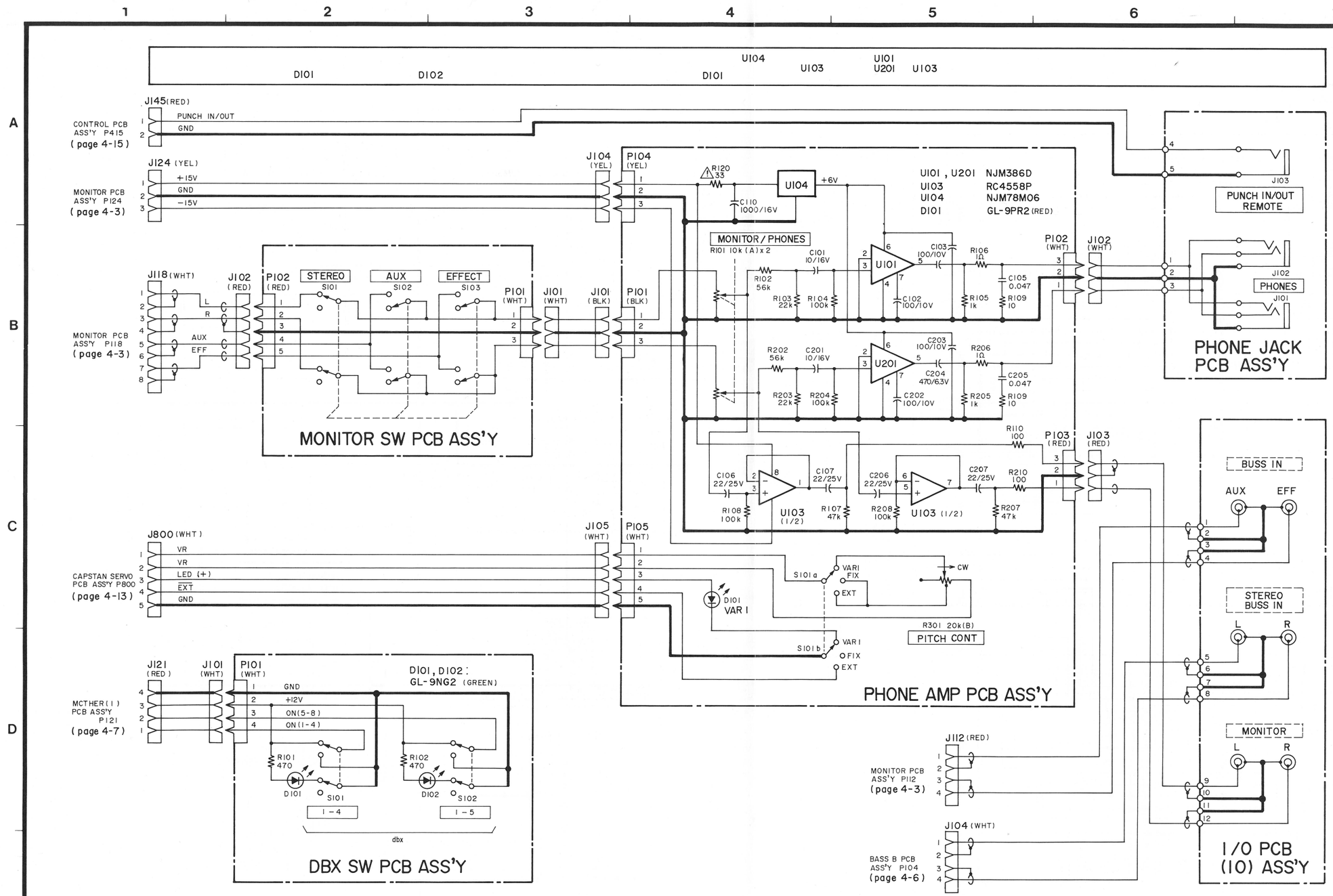
4-16. Bias PCB Ass'y



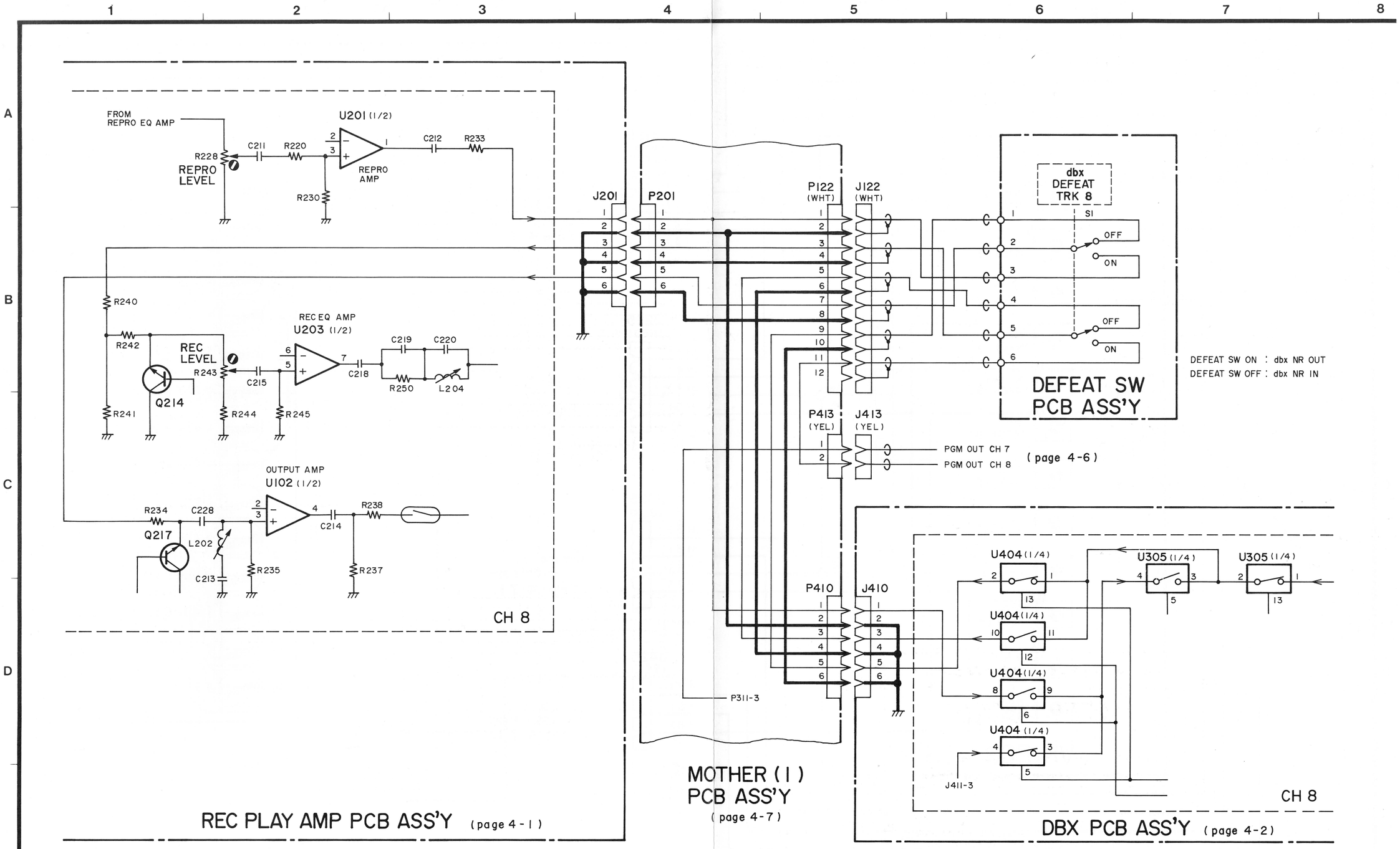
4-17. Head Ass'y/Mecha. Joint PCB Ass'y



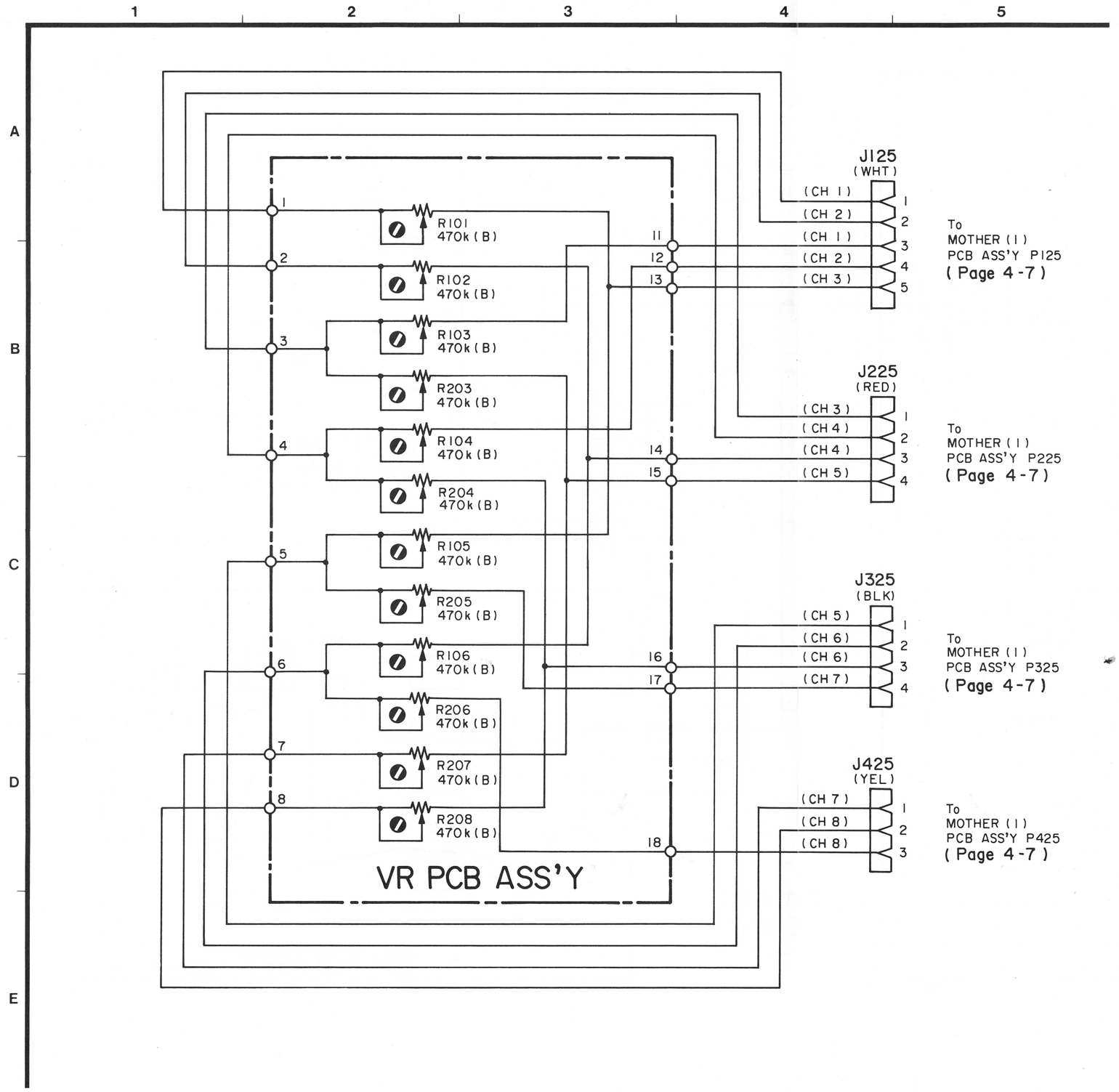
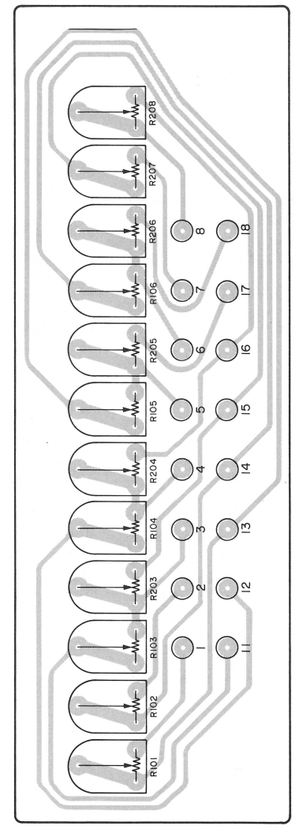
4-18. Monitor SW PCB Ass'y/DBX SW PCB Ass'y/Phone Amp PCB Ass'y/I/O PCB (IO) Ass'y



4-19. Defeat SW PCB Ass'y



4-20. VR PCB Ass'y



VR PCB